Automated Fee Machine
Functional Requirements to address in a park RFP

This document is a guide for the basic functional requirements that a Park might include when considering procurement of an Automated Fee machine.

Introduction

Automated Fee Machines (AFMs) are stand-alone point-of-sale units also called Pay Stations used for the collection of fees at unstaffed locations (e.g., campgrounds, after-hour or non-staffed entrances, visitor centers, or parking lots for day use or boat launch). AFMs are programmed to sell products, accept payment, produce a receipt for the proof of purchase, and provide reports on the sales and collections. Items that can be sold at a machine include: Camping, Entrance, Individual or Per-Person fees; Commercial Use fees; Park-specific Annual passes, Interagency Annual Pass, Interagency Senior Pass, Boat launch or rental fees, tour fees.

Note: The park's functional requirements should describe the desired collection location and identify the types of items they plan to collect with the machine.

Type of Programming

Programming Options: "Quick Pick" or "Pay-by-Space"

AFMs were originally developed for the parking industry and because of this there are generally two different types of programs: "Quick Pick" or "Pay-by-Space". The park should identify which type of programming they are requiring.

Quick Pick Programming

"Quick Pick" is a programming option that results in a simple rate structure. The AFM provides the option to purchase an item from a list, the customer inserts payment, and a receipt is printed for the proof of purchase. There may be an option to multiply the item by a quantity entered by the customer (i.e. number of nights, sites, or people). Collection reports are generally provided for the quantity and dollar amount of the items purchased.

The following features are recommended for the Quick Pick program:

- ✓ **Variable Rates:** ability to program different rates (items) with different prices for sale i.e. $16 for a tent camp site, $20 for a RV camp site, $25 for a RV camp site with hook-ups, $50 for a group camp site. Note: Most programs will offer the ability to program the rates to change based on the time or day.

- ✓ **Discount reference number:** ability for the visitor to input numbers to reference a discount card such as the Interagency Senior or Access Passport number. This reference is included in the programming for a specified rate i.e. $8 for a Senior/Access Tent Site. The machine should allow for this feature to be turned on or off for any rate. The referenced number should be displayed on the receipt.

- ✓ **Multiplier:** ability to multiply the rate by a number, input by the visitor, to calculate the total being purchased. This feature displays a prompt asking a programmed question of how many of

XXX they want i.e. "How many camping nights?" or "How many people?" The visitor then enters the quantity and the machine tells them the total amount for the purchase.

- ✓ **Calculate expiration date & time:** ability to calculate and display on the receipt an expiration date based on the rate or a multiplier i.e. a twelve month expiration date from the date of purchase for an annual pass, or the expiration date of the camping item based on the number of camping nights entered.
    - o Generally most programs cannot adjust the expiration time based on a camping receipt paid after midnight. The receipt will show expiration for the following day instead of that day based on the programming. If it is important to have a machine calculate an expiration date based on an "if/then" logic that should be described in the park's functional requirements. A solution to this problem is to create an item called a "last night camping" which displays the actual expiration.
- ✓ **Multiple language option**: ability to display the rates on the screen of the machine and receipt text in a foreign language. In the park requirements, identify which foreign languages are desired. The park will need to supply the translated text for this function.

"Pay-by-Space"

This program offers more complex programming where the visitor can select a specific campsite or parking spot and the program determines if the site is available or prompts selection of another site. This option provides management reports which can then be used to perform compliance.

The following features are options for a Pay-by-Space program:

- ✓ **Identify Site Inventory:** ability for the park to enter the inventory of spaces or camping sites that are available for sale.
- ✓ **Identify reserved sites:** ability for the park to enter sites that have been reserved for X number of nights and are not available for purchase.
- ✓ **Select Site to occupy:** ability for the visitor to select a specific site for the length of stay. The machine will determine if the site is available**.** The site number shall be recorded on the receipt.
- ✓ **Identify Sites Available:** ability to display which sites are available for purchase for a date range
- ✓ **Calculates expiration date & time:** ability to display the expiration date and time i.e. if the visitor pays at 01:00 am the receipt will expire that morning and not 24 hours from the purchase time. This would prevent the visitor from getting two nights of camping and only paying for one.
- ✓ ***Option* Extend time:** ability for the visitor to return to the machine with their paid receipt and add more payment to stay in that site.
- ✓ ***Option* for Visitor to Change Site Number**: ability for the visitor to return with their paid receipt and change sites. This change produces a new receipt with the new site referenced on it and the compliance reports are updated.
- ✓ ***Option* calculate difference in rate of changed site:** ability to determine and collect additional money (or provide a refund) if there is a difference between the original payment and the revised amount due.

Receipts

The machine shall provide a printed receipt which indicates the following:

- ✓ Machine identifier
- ✓ Purchase time
- ✓ Expiration date
- ✓ Transaction number
- ✓ Item purchased
- ✓ Any multipliers used in the price calculation
- ✓ Discount reference number
- ✓ Amount paid
- ✓ Last four digits only, of the credit card number
- ✓ Configurable header to identify the park or location of the purchase
- ✓ Configurable footer with a minimum of 5 lines for a customizable message
- ✓ *Option* Configurable footer applied for different types of items

The receipts shall be printed on durable, weather resistant paper stock that is resistant to fading or turning black in extreme temperatures/sunlight. (e.g., the receipt is still readable after sitting in the dashboard of a car in direct sunlight for several days).

Option Paper stock has a pre-printed NPS message on the back of the paper or with the NPS arrowhead as a watermark.

Types of payment accepted

Identify in the park's functional requirements the type of payments that will be accepted, including the following options:

- ✓ Credit Card only
- ✓ Credit Card and currency (bills and coins) with change making capabilities
- ✓ Credit Card and currency (bills and coins) with NO change making capabilities
- ✓ Currency (bills and coins) ONLY with change making capabilities
- ✓ Currency (bills and coins) ONLY with NO change making capabilities

NOTE: Consider accepting payment only by Credit Card. There are additional costs and security risks when accepting currency (bills and coins) which include cost for primary and back-up bill and coin equipment, increased personnel costs for regular collections, maintenance of the machine due to bill or coin jams, inaccurate accounting of dispensed coins, and security concerns for staff while performing collections in remote locations.

Bill Acceptor for Currency:

- ✓ Configurable acceptance of U.S. currency bill denominations: $1, $5, $10, $20, & $50. The unit identifies the denomination and holds the bill until transaction is complete or returned after a predetermined period of time if a transaction is not completed.
- ✓ Lock for security of monies during collections.
- ✓ Capable of stocking a minimum of 1,000 bills.
- ✓ Easy removal for servicing.
- ✓ Must be able to easily upgrade when there are new bill releases from the US Treasury.
- ✓ Programmed to identify and accept various bill types regardless of how a bill is inserted into the bill acceptor.

Coin Acceptor/Dispenser:

- ✓ Configurable for the acceptance of payment and dispensing of change: nickels, dimes, quarters, and dollar coins.
- ✓ Capable of holding a minimum of $500 in dollar coins.
- ✓ Lock for security of monies during collections.
- ✓ Easy removal for servicing.
- ✓ Self-replenishing coin acceptor for dollar coins and coin bag for acceptance of overflow coins.
- ✓ If machine runs out of change, it will provide a receipt that shows the amount due to purchaser.

Coin and Ticket Dispenser

The machine shall have coin and ticket dispensers that are easily accessible and reliable. It shall have a clear door to contain the coins or ticket until the visitor can retrieve them. The machine shall drain water so that it does not pool up in to the dispenser.

Credit Card

Please refer to *Automated Fee Machine Interim Purchasing Guidelines* for requirements related to IT security, banking, and telecommunication lines.

Reports

Examples names of common reports include:

- ✓ Operator non-resettable totals to control grand total sale
- ✓ Automatic resettable collection totals
- ✓ Cash and credit card sales breakdown totals
- ✓ Hourly breakdown of total sales
- ✓ Record of amount of bills and change entered and dispensed into/from the machine
- ✓ Total coins held in the machine
- ✓ Detailed record of transactions through a transaction log

Additional Reports for Pay-by-Space programming

- ✓ Occupied Site Report which shows when the site expires and which sites paid by a discounted pass with the card number.
- ✓ Vacant Site report which shows which sites have expired and are available.

Other Features

Display Screen

The machine shall have a screen with visual prompts displaying rates and options that is Section 508 compliant. The display screen shall be user friendly, easily read from different angles and under varying lighting conditions (including bright, low or no light), resistant to extreme weather conditions, and modular for easy removal and servicing.

Keypad

The machine shall have a reliable keypad that is Section 508 compliant which allows visitors to enter numbers for the multiplier or discounted reference number.

Printer

The machine shall have a printer for printing receipts, collection and compliance reports with the following features:

- ✓ Modular and easy to remove for repair and maintenance.
- ✓ Uses latest receipt printing technology for fast and durable receipts
- ✓ Auto paper cutting feature

Option Some vendors have developed machines with multiple printers, so that various types of paper stock can be pre-printed with pertinent information, such as Boat Launch Permits or annual passes.

Power:

The AFM shall at minimum meet the Underwriters laboratories (U/L) electrical Safety Standard 60950-1. The power supply shall have a circuit breaker and indicator to identify the power is on or off. http://ulstandardsinfonet.ul.com/scopes/scopesnew.asp?fn=60950-1.html

Work with the park Electrician to identify further requirements and the type of power available for the AFM. The standard method would be a connection to power hookup. Following are examples of the types of power that the machine could use:

- Electric or AC power is the most common power source for the units. Ensure the unit has an Uninterrupted Power Supply (UPS) to provide power disruption survivability for at least one hour when external electrical power is removed and power surge suppression to protect against electrical power surges or brown-outs.

- Battery powered – small battery packs are recommended. The unit must be able to be powered solely on battery power. Battery removal must be easy and convenient with a minimum number of connections to the unit. Two power supplies must be provided to ensure one is available at all times. The battery pack must supply power for a minimum of one week's operation without re-charging (a two week duration is preferred).

- Solar powered systems should power a battery unit within the machine and should be designed to blend in with the surroundings.

- Automated Fee Machines components should meet the International Electrical Code (IEC) standard 60529 with an international protection rating classification of IP54 or greater.

The AFM programming should have sleep mode feature to conserve energy. The sleep mode should be set according to use needs. For example, it may be set to initiate sleep mode after 5 to 10 minutes of non-use or after a designated time in the evening.

Durability / Weather resistant / Environmental Requirements

The machine and case shall be weather resistant with the ability to function in extreme high and low temperatures, high humidity, dusty, and wet environments since most self-pay machines are located outside. They must be able to withstand extreme environmental conditions that may cause corrosion, rust, melting of components, paint peeling, and fading. Include a description of the weather conditions that exist at the park.

- Dust-protection: Infiltration of dust cannot be entirely prevented, but the machine shall be adequately sealed to prevent excessive dust from entering the machine and interfering with operation.

- Splashing water: Water splashing against the enclosure from any direction shall have no harmful effects.

Security

The AFM shall have a vandal resistant case that has a secure locking system for access into the machine.

The door shall be resistant to prying or drilling and able to be secured to a permanent pedestal.

Lock keys may not be duplicated; a park designee may only obtain additional keys and locks from the key company.

When possible internal (silent) alarms and external audible alarms should be considered to alert enforcement personnel of attempted break-ins and vandalism.

User Manual

The AFM shall include a user manual for the machine which includes information on how to install, program, operate, maintain, and troubleshoot the machine.

Installation

The park generally installs the power, telecommunications, and pedestal for the machine. The vendor usually installs the AFM. The vendor will also program the machine and conduct tests to ensure it is working properly including data transfer and credit card processing.

Training

The contractor should include training on how to install, operate, maintain, and troubleshoot the different components of the machine. Training should cover use of the software program, transmission of data, and how to perform collections.

Service Level Agreements (SLA)

The contractor should provide an option for parks to purchase annual or hourly support for the machine this is called a Service Level Agreement (SLA). Items that can be covered in an SLA include:

- ✓ Support Mode: Methods by which users may access and receive service from the Tier 1 support.
- ✓ Service Availability: Days and times in which Tier 1 support is available and after-hours options.
- ✓ Time to Answer: Average and maximum times that users will have to wait before being able to speak with a Tier 1 Support Representative.
- ✓ Access to Configurations: Information available to the technical support personnel about the park's machine(s).
- ✓ Issue Resolution Time: Average and maximum time between report of an issue and resolution.
- ✓ Customer Satisfaction: Average customer satisfaction level for technical support calls, along with methods of assessment.

Return Material Authorization (RMA)

The contractor should provide a description of their Return Material Authorization (RMA) process.

Warranty

The contractor should provide their warranty for the automated fee machine. Items that should be covered in a warranty include:

- ✓ Length of Warranty.
- ✓ Point at which warranty begins.
- ✓ Warranty reporting procedures.
- ✓ Maximum time from defect report to equipment replacement or repair.
- ✓ Duration of warranty for replaced equipment.
- ✓ On-site vs. remote warranty service.
- ✓ Cost and process for extended warranties.

Other / Enhancing Features

Depending on the park's operational needs, other features may be required by the park. These features must be identified in the park's functional requirements. These features will likely increase the cost to the park and may not be available from all vendors.

Dispensing of Park Specific Passes

Ability to print or dispense distinct passes from separate stock such as the park specific annual pass, boat launch annual decals, or the annual Interagancy pass.. This ability provides immediate customer service and reduces the need for the visitor to go to an office to complete the purchase.

Voice Prompt

Voices prompt to direct the visitors in the use of the machine. If the voice prompt is required for the operation of the machine, it must meet Section 508 requirements for the hearing impaired.

Integration with Automated Gates

Output circuit to open automated gates with certain types of passes.